GEORASTER PHYSICAL DATA MODEL FOR STORING GEOREFERENCED RASTER DATA

ABSTRACT

In one embodiment of the present invention, in a database management system, a system for handling geographic raster data comprises a first data table including a plurality of GeoRaster objects, each GeoRaster object including a spatial extent geometry and associated metadata, the spatial extent geometry identifying a footprint of a geographic raster data object and associated with at least one block of raster data, a second data table including a plurality of raster objects, each raster object associated with one block of raster data of a GeoRaster object and including information indicating a spatial extent of the block of raster data and information relating to the block of raster data, a first spatial index built on the first data table based on the spatial extent geometry of each of the plurality of GeoRaster objects, the first spatial index operable to retrieve a GeoRaster object from the first data table based on a relative spatial location of the GeoRaster object, and a primary key index built on the second data table based on the information relating to the block of raster data, the index operable to retrieve a raster object from the second data table based on the information relating to the block of raster data associated with the retrieved raster object.